Dario Gjorgjevski

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Education

Ss. Cyril and Methodius University Faculty of Computer Science and Engineering

Computer Science and Engineering GPA of 10.00, scale from 5 (E/F) to 10 (A)

2013-09-15/2018-01-30 Skopje, Macedonia Bachelor's degree

Strong background in linear algebra, statistics, stochastic processes, compilers, machine learning, and cryptography. Bachelor's thesis on code-based cryptography, titled "Error-Correcting Codes in the Rank Metric (With Applications to Cryptography)" and supervised by prof. Simona Samardjiska.

Over 40 *Massive Open Online Courses* on topics related to game theory, probabilistic graphical models, Bayesian statistics, combinatorics, programming language theory, mathematical optimization, etc.

Certifications available at https://github.com/d125q/Personal/tree/master/Certifications.

Experience

Segment of One

2018-07-18/

Data Engineering

Berlin, Germany

- Modeling clients' business rules as *minimum-cost flow* problems.
- Developing internal ETL tools and processes; implementing change data capture for heterogeneous data sources.
- Scaling of feature calculation and predictive analytics to terabyte scale inside a Vertica cluster.

Infinite Analytics, Inc.

2017-11-20/2018-06-15

Data Science/Engineering

Skopje, Macedonia

- Scraping of clients' websites and product catalogs using Scala/Akka and Python/Scrapy.
- Dynamic configuration of upstreams with persistence across restarts in NGINX Plus.
- Acquisition, monitoring, analysis, and visualization of server utilization data.
- Behavior-driven development of a Scala/Apache Spark program to compute and visualize *customer insights* using over 2 billion facts about 50 million customers.

École polytechnique fédérale de Lausanne Laboratory for Communications and Applications

2017-07-07/09-20

Lausanne, Switzerland

Research Internship

Supervisors: Jagdish Prasad Achara and prof. Jean-Yves Le Boudec

- Implementing software agents (asyncio) and network emulation (Mininet) in T-RECS, a *Software Testbed for Multi-Agent Real-Time Control of Electric Systems*.
- Time series modeling of smart grid power traces at a timescale of 20 ms using approaches based on wavelets and long-range dependence.
- Increasing the resolution of mean-aggregated data using deep learning for super-resolution.

Ss. Cyril and Methodius University Faculty of Computer Science and Engineering

2016-10/2017-02 Skopje, Macedonia

Computer Laboratory Assistantship

Full responsibility for conducting computational exercises and homework assignments in:

Linear Algebra Least squares, linear codes, and low-rank approximations with Mathe-

matica and SAGEMATH.

Probability and Statistics Data visualization, Monte Carlo methods, statistical inference, hypothe-

sis testing, and linear regression with R.

Databases ER modeling, relational algebra, and ANSI SQL.

École polytechnique fédérale de Lausanne Security and Cryptography Laboratory 2016-06-15/09-15 Lausanne, Switzerland

Research Internship

Supervisors: Sonia Bogos and prof. Serge Vaudenay

Studying and improving upon the complexity of state-of-the-art solving algorithms for the *Learning With Errors* (LWE) problem.

Honors and Achievements

- Best student paper at the 14th International Conference on Informatics and Information Technologies held on April 7–9, 2017 in Hotel Bistra, Mavrovo, Macedonia.
- Scholarships to attend the 2016 and 2017 editions of the Summer School on Real-World Crypto and Privacy held in Šibenik, Croatia.
- Dean's list at the Faculty for Computer Science and Engineering.
- Merit-based scholarships from the Faculty of Computer Science and Engineering, the Ministry of Education and Science of Macedonia, and the Municipality of Delčevo.

Skills

Programming and Computation

Proficient with — Python — NumPy, SciPy, Pandas, scikit-learn, Keras, Scrapy, NetworkX.

R – tidyverse, mlr, caret, interfaces to JAGS and Stan.

Packages for time series analysis, network analysis, text mining.

SQL - Vertica, PostgreSQL, Redshift.

Shell - sh. Bash. Zsh.

CAS - Mathematica, SAGEMATH.

(D)VCS - Git.

Familiar with – Scala, C, C++, Java.

Academic exposure to - various Lisps, Haskell, Standard ML.

Document Preparation

- (A)TFX, Jupyter, Sweave/knitr, Wolfram Notebooks.
- Matplotlib, TikZ/PGF, PSTricks, ggplot2, gnuplot, Graphviz.

Publications

- [1] **Dario Gjorgjevski** and Dejan Gjorgjevikj. "Using Distributed Representations to Identify Genders and Age Groups of Twitter Users." In: *Proceedings of the 15th International Conference on Informatics and Information Technologies* (Hotel Bistra, Mavrovo, Macedonia, Apr. 20–22, 2018). Ed. by Nataša Ilievska and Georgina Mirčeva. 2018. To be published.
- [2] **Dario Gjorgjevski**. "Combining LWE-Solving Algorithms." In: *Proceedings of the 14th International Conference on Informatics and Information Technologies* (Hotel Bistra, Mavrovo, Macedonia, Apr. 7–9, 2017). Ed. by Aleksandra Popovska-Mitrovikj, Biljana Tojtovska, and Kire Trivodaliev. 2017, pp. 165–170. ISBN: 978-608-4699-07-1. eprint: http://ciit.finki.ukim.mk/data/papers/CIIT2017.pdf.